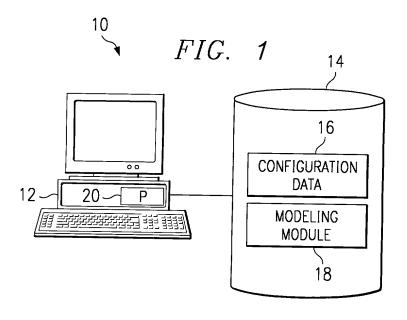Docket No. 066516.0108
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10

FIG. 1

14

16

CONFIGURATION
DATA

MODELING
MODULE

18

12 20 P

FIG. 2

52 NETWORK TYPE

NETWORK
COMPONENTS

NETWORK
CONNECTIONS

NETWORK
RULES

54

56

58

FIG. 3

18 MODELING
MODULE

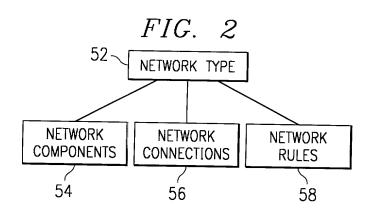DIGITAL
LOOP
CARRIER

ASYNCHRONOUS
TRANSFER
MODE

o o o

INTERNET
PROTOCOL

72

74

76
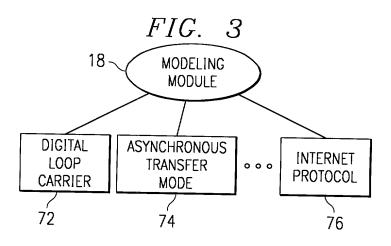
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NETWORK TYPE	COMPONENT TYPE	CONNECTION TYPE	RULES
DLC	RDTs COTs	TR-008 GR-303 43801	MAXIMUM OF 8 RDTs
⋮	⋮	⋮	⋮
VPN	END-USER LOCATION TRANSPORT NETWORK SERVER	ETHERNET IP	MINIMUM OF 1 SERVER

FIG. 4A

COMPONENT TYPE	LEVEL	PROPERTIES
LDS	1	
COTs	2	CAN CONNECT TO MAXIMUM OF 5 RDTs CAN CONNECT TO RDT USING T1
⋮	⋮	⋮
RDTs	3	CAN CONNECT TO COT USING T1

FIG. 4B

CONNECTION TYPE	LEVEL	PROPERTIES
TR-008	1	INCLUDE MAXIMUM OF 4 T1's
GR-303	1	672 PHYSICAL PORTS 1536 VIRTUAL PORTS
⋮	⋮	⋮
T1 FACILITY CIRCUITS	2	INCLUDES 24 POTS SERVICES

FIG. 4C

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FIG. 5A

START

200 — RECEIVE A USER SELECTION
FOR A TYPE OF NETWORK

202

IS
SELECTED
NETWORK TYPE
AVAILABLE
?

NO → 204

PROMPT USER TO
SELECT ANOTHER
TYPE OF NETWORK

YES

206 — IDENTIFY AND RETRIEVE CONFIGURATION
DATA FOR NETWORK TYPE

FROM
FIG. 5B,5C

C

208 — RECEIVE AND STORE ATTRIBUTES
FOR THE USER'S NETWORK

NO ← RECEIVE
USER SELECTION FOR A
COMPONENT?

210

YES

IS
SELECTED
COMPONENT VALID FOR
NETWORK TYPE
?

NO → INFORM USER THAT
SELECTED COMPONENT
IS INVALID FOR
NETWORK TYPE

212

214

YES

216 — ALLOW USER TO PLACE SELECTED
COMPONENT IN NETWORK

218 — DISPLAY NODE TO
REPRESENT COMPONENT

220 — RECEIVE AND STORE
ATTRIBUTES FOR COMPONENT

A

TO FIG. 5B

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FROM FIG. 5A

A

FIG. 5B

222

RECEIVE
USER SELECTION FOR A
CONNECTION? — NO

↓ YES

224

IS SELECTED
CONNECTION VALID FOR
NETWORK TYPE? — NO →

226

INFORM USER THAT
SELECTED CONNECTION
IS INVALID FOR
NETWORK TYPE

↓ YES

228 — ALLOW USER TO PLACE
SELECTED CONNECTION
BETWEEN TWO COMPONENTS

CAN CONNECTION
VALIDLY CONNECT THE
TWO COMPONENTS ACCORDING TO
RULES ASSOCIATED WITH
NEWTWORK TYPE? — NO →

230

232

INFORM USER THAT
CONNECTION CANNOT
VALIDLY CONNECT
TWO COMPONENTS

↓ YES

234 — DISPLAY CONNECTION LINE TO
REPRESENT CONNECTION

236 — RECEIVE AND STORE ATTRIBUTES
FOR THE CONNECTION

C

TO
FIG. 5A

RECEIVE
USER REQUEST
TO ASSIGN A HIERARCHY OF
CONNECTORS TO A
CONNECTION? — NO →

238

D

TO FIG. 5C

↓ YES

B

TO FIG. 5C

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FROM FIG. 5B

B

240

ARE CONNECTORS VALID FOR SUBORDINATE LEVEL OF CONNECTION?

NO

INFORM USER THAT CONNECTORS ARE NOT VALID FOR SUBORDINATE LEVEL OF CONNECTION   242

YES

244   ASSIGN CONNECTORS TO CONNECTION

246   RECEIVE AND STORE ATTRIBUTES FOR CONNECTORS

FROM FIG. 5B

D

248

RECEIVE USER REQUEST TO VALIDATE NETWORK?

NO

YES

DOES NETWORK COMPLY WITH RULES ASSOCIATED WITH NETWORK TYPE?

250

NO

INFORM USER THAT NETWORK IS INVALID

252

YES

INFORM USER THAT NETWORK IS VALID

254

256   RECEIVE USER REQUEST TO PROVISION THE NETWORK?

NO

YES

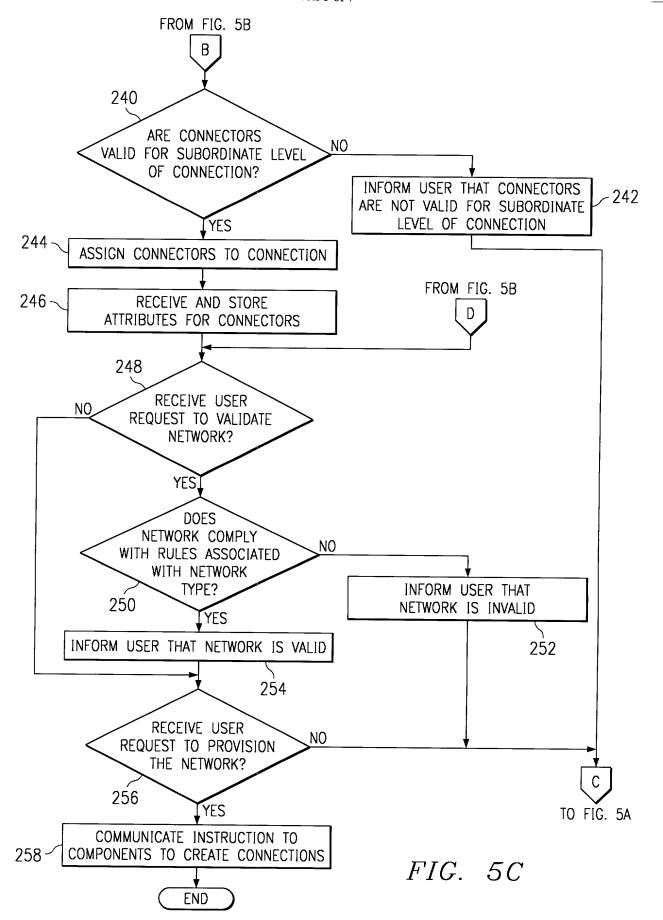258   COMMUNICATE INSTRUCTION TO COMPONENTS TO CREATE CONNECTIONS

C

TO FIG. 5A

END

FIG. 5C

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FIG. 6A

START

300 — DETERMINE WHAT MODES OF OPERATION ARE ACTIVATED

302 — MAKE NETWORK TYPES AVAILABLE FOR USER SELECTION ACCORDING TO ACTIVATED MODES OF OPERATIONS

304 — RECEIVE A USER SELECTION FOR ONE OF NETWORK TYPES

306 — IDENTIFY AND RETRIEVE CONFIGURATION DATA FOR SELECTED NETWORK TYPE

308 — RECEIVE AND STORE ATTRIBUTES FOR THE USER'S NETWORK

310 — DETERMINE WHAT COMPONENTS ARE VALID FOR SELECTED NETWORK TYPE

312 — MAKE VALID COMPONENTS AVAILABLE FOR USER SELECTION

314 — DETERMINE WHAT CONNECTIONS ARE VALID FOR SELECTED NETWORK TYPE

316 — MAKE VALID CONNECTIONS AVAILABLE FOR USER SELECTION

318 — RECEIVE USER SELECTION FOR ONE OF AVAILABLE COMPONENTS ? →YES →NO

C FROM FIG. 6B

320 — ALLOW USER TO PLACE SELECTED COMPONENT IN NETWORK

322 — DISPLAY NODE TO REPRESENT COMPONENT

324 — RECEIVE AND STORE ATTRIBUTES FOR COMPONENT

326 — RECEIVE USER SELECTION FOR ONE OF AVAILABLE CONNECTIONS ? →NO →YES

328 — DETERMINE WHAT COMPONENTS THE SELECTED CONNECTION CAN VALIDLY CONNECT

330 — ALLOW USER TO PLACE SELECTED CONNECTION BETWEEN TWO OF THOSE COMPONENTS

332 — DISPLAY CONNECTION LINE TO REPRESENT CONNECTION

334 — RECEIVE AND STORE ATTRIBUTES FOR THE CONNECTION

336 — DOES CONNECTION INCLUDE SUBORDINATE LEVEL OF CONNECTORS ? →NO →YES

A TO FIG. 6B

B TO FIG. 6B

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FROM FIG. 6A [A]

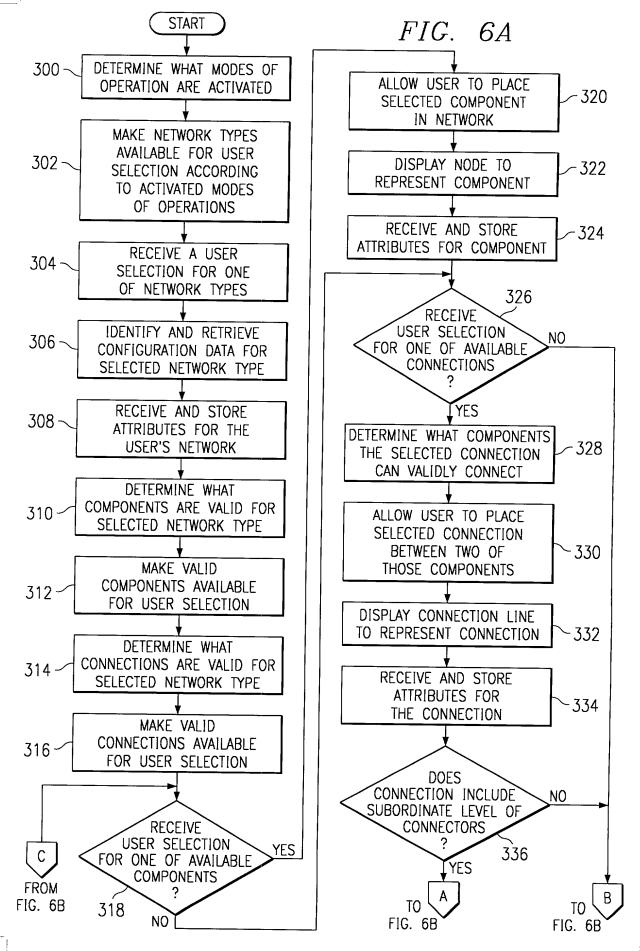338 — DETERMINE WHAT CONNECTORS ARE VALID FOR SUBORDINATE LEVEL OF CONNECTION

340 — MAKE VALID CONNECTORS AVAILABLE FOR USER SELECTION

342 — RECEIVE USER SELECTION FOR ONE OF AVAILABLE CONNECTORS

344 — ASSIGN SELECTED CONNECTOR TO CONNECTION

346 — RECEIVE AND STORE ATTRIBUTES FOR CONNECTOR

348 — DOES CONNECTION REQUIRE ADDITIONAL SUBORDINATE CONNECTORS ? — YES

FIG. 6B

FROM FIG. 6A [B]

NO

RECEIVE USER REQUEST TO VALIDATE NETWORK ? — NO
350

YES

DOES NETWORK COMPLY WITH RULES ASSOCIATED WITH NETWORK TYPE? — YES
352

NO

354 — INFORM USER THAT NETWORK IS INVALID

356 — INFORM USER THAT NETWORK IS VALID

RECEIVE USER REQUEST TO PROVISION THE NETWORK ? — NO
358

YES

COMMUNICATE INSTRUCTION TO COMPONENTS TO CREATE CONNECTIONS

END 360

TO FIG. 6A [C]